

**Marked-up Version of Amended Claims  
Pursuant to 37 C.F.R. §§ 1.121(b)-(c)**

1. (amended) A recombinant protein comprising peptides from two or more stages in a life cycle of *Plasmodium falciparum*, wherein ~~that each peptide contain~~ comprises an antigenic epitopes ~~from two or more stages in a life cycle of *Plasmodium falciparum*.~~

2. (amended) The protein of ~~Claim~~ claim 1, wherein the peptides are selected from the group consisting of SEQ ID NOS: 3-25, fragments thereof, combinations thereof, and conservative substitutions thereof that maintain antigenicity.

3. (amended) The protein of ~~Claim~~ claim 1, comprising the amino acid sequence of SEQ ID NO: 2, fragments thereof, or conservative substitutions thereof that maintain antigenicity.

4. (amended) The protein of ~~Claim~~ claim 1, further comprising a signal peptide polyhistidine, and a T-cell helper epitope.

5. The protein of claim 1, wherein the stages are selected from the group consisting of sporozoite stage, liver stage, blood stage and sexual stage.

6. (new) The protein of claim 5, comprising at least one antigenic epitope from each of the sporozoite, liver, blood, and sexual stages of *Plasmodium falciparum* life cycle.

7. (new) An isolated nucleic acid molecule encoding the protein of claim 1.

8. (new) The isolated nucleic acid molecule of claim 7, comprising the nucleotide sequence of SEQ ID NO: 1, fragments thereof, or conservative substitutions thereof that maintain antigenicity.

~~6. (deleted) The protein of Claim 1, encoded by the nucleotide sequence of SEQ ID NO: 1, fragments thereof, or conservative substitutions thereof.~~

79. (amended) A method of enhancing an immune response of ~~a human or an~~ animal to *Plasmodium falciparum* comprising administration to the ~~human or~~ animal of an effective amount of a protein composition comprising ~~a~~ the recombinant protein of claim 1 in a pharmaceutically acceptable carrier, ~~the recombinant protein comprising peptides that contain antigenic epitopes from two or more stages in a life cycle of *Plasmodium falciparum*.~~

810. (amended) ~~A~~ The protein composition of claim 7 ~~comprising a recombinant protein in a pharmaceutically acceptable carrier, the recombinant protein comprising peptides that contain antigenic epitopes from two or more stages in a life cycle of *Plasmodium falciparum*, wherein the protein composition is immunogenic when administered to a human or to a nonhuman animal.~~

911. (amended) Antibodies immunoreactive to ~~a~~ the recombinant protein comprising peptides that contain antigenic epitopes from two or more stages in a life cycle of *Plasmodium falciparum* of claim 1.

1012. (amended) Use of the antibodies of Claim claim 9-11 for simultaneous detection or measurement of peptides derived from two or more stages in a life cycle of *Plasmodium falciparum*.

REMARKS

By this preliminary amendment, original claims 1-10 have been rewritten as new claims 1-12. The changes in the text of the claims have been made to more fully reflect the scope of the invention. All of the rewritten claims are believed to be fully supported by the specification, and by the original claims.

The amendment to the specification is made only to claim priority to related cases.

No new matter has been added by this amendment.

Respectfully submitted,

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